AMENDMENTS TO THE CLAIMS

1- 19 (Canceled).

20. (New) A surgical drain system for draining wound fluids and sensing a physiological property of a tissue in a patient's body comprising:

a) a surgical drain configured to be fully implanted in a patient's body, to rest against the surface of at least one tissue in the patient's body, and to drain wound fluids from the vicinity of the tissue, wherein the surgical drain is not configured to penetrate the tissue, comprising:

i. a first surface located on an outer side of the surgical drain;

ii. a drain portion configured to rest against the tissue within the body;

iii. a plurality of drain holes spaced along substantially the entire length of the drain portion;

b) a first element branching out from the first surface of the surgical drain and configured for insertion in the tissue inside the patient's body and to emit energy into the tissue;

c) a second element branching out from the first surface of the surgical drain and configured for insertion in the tissue inside the patient's body and to receive energy from the tissue; and

d) a tube in fluid communication with the surgical drain configured to transport the drained wound fluids out of the body.

21. (New) The surgical drain of claim 20 wherein the first and second elements include optical fibers.

22. (New) The surgical drain of claim 20 wherein the received energy is indicative of a physiological property of the tissue.

23. (New) The surgical drain of claim 22, wherein the physiological property is selected from the group comprising: oxygenation, perfusion, pH, NADH levels, biochemical composition, or drug concentration.

24. (New) The surgical drain of claim 20 wherein the second element is configured to receive energy from the tissue that is a derivative of the energy emitted into the tissue by the first element.

25. (New) A surgical drain system for draining wound fluids and sensing a physiological property of a tissue in a patient's body comprising:

a) a surgical drain configured to be fully implanted in a patient's body, to rest against the surface of at least one tissue in the patient's body, and to drain wound fluids from the vicinity of the tissue, wherein the surgical drain is not configured to penetrate the tissue, comprising:

i. a first surface located on an outer side of the surgical drain;

ii. a drain portion configured to rest against the tissue within the body;

iii. a plurality of drain holes spaced along substantially the entire length of the drain portion;

b) a first element branching out from the first surface of the surgical drain and configured for insertion in the tissue inside the patient's body and to emit energy into the tissue;

c) a second element embedded in the first surface of the surgical drain and configured to receive energy from the tissue; and

d) a tube in fluid communication with the surgical drain configured to transport the drained wound fluids out of the body.

26. (New) The surgical drain of claim 25 wherein the first and second elements include optical fibers.

27. (New) The surgical drain of claim 25 wherein the received energy is indicative of a physiological property of the tissue.

28. (New) The surgical drain of claim 27, wherein the physiological property is selected from the group comprising: oxygenation, perfusion, pH, NADH levels, biochemical composition, or drug concentration.

29. (New) The surgical drain of claim 25 wherein the second element is configured to receive energy from the tissue that is a derivative of the energy emitted into the tissue by the first element.

30. (New) A surgical drain system for draining wound fluids and sensing a physiological property of a tissue in a patient's body comprising:

a) a surgical drain configured to be fully implanted in a patient's body, to rest against the surface of at least one tissue in the patient's body, and to drain wound fluids from the vicinity of the tissue, wherein the surgical drain is not configured to penetrate the tissue, comprising:

i. a first surface located on an outer side of the surgical drain;

ii. a drain portion configured to rest against the tissue within the body;

iii. a plurality of drain holes spaced along substantially the entire length of the drain portion;

b) a first element branching out from the first surface of the surgical drain and configured for insertion in the tissue inside the patient's body and to receive energy from the tissue;

c) a second element embedded in the first surface of the surgical drain and configured to emit energy into the tissue; and

d) a tube in fluid communication with the surgical drain configured to transport the drained wound fluids out of the body.

31. (New) The surgical drain of claim 30 wherein the first and second elements include optical fibers.

32. (New) The surgical drain of claim 30 wherein the received energy is indicative of a physiological property of the tissue.

33. (New) The surgical drain of claim 32, wherein the physiological property is selected from the group comprising: oxygenation, perfusion, pH, NADH levels, biochemical composition, or drug concentration.

34. (New) The surgical drain of claim 33 wherein the first element is configured to receive energy from the tissue that is is a derivative of the energy emitted into the tissue by the second element.

35. (New) A surgical drain system for draining wound fluids and sensing a physiological property of a tissue in a patient's body comprising:

a) a surgical drain configured to be fully implanted in a patient's body, to rest against the surface of at least one tissue in the patient's body, and to

drain wound fluids from the vicinity of the tissue, wherein the surgical drain is not configured to penetrate the tissue, comprising:

i. a first surface located on an outer side of the surgical drain;

ii. a drain portion configured to rest against the tissue within the body;

iii. a plurality of drain holes spaced along substantially the entire length of the drain portion;

b) a sensing element branching out from the first surface of the surgical drain and configured for insertion in the tissue inside the patient's body and to sense energy within the tissue that is indicative of a physiological property of the tissue; and

c) a tube in fluid communication with the surgical drain configured to transport the drained wound fluids out of the body.